

SECTION 2

STRATEGIC DIRECTIONS AND INITIATIVES

KIOSK

www.fairfaxcounty.gov

CRIS



Fairfax County
VIRGINIA

GIS

CABLE
TV



WEB

IVR



STRATEGIC DIRECTIONS AND INITIATIVES

FEATURED IN THIS SECTION

| | | |
|-------|--|----|
| 2.1 | STATEMENT OF TECHNICAL DIRECTION | 1 |
| 2.1.1 | E-Government | 1 |
| 2.1.2 | Customer Relationship Management (CRM) | 8 |
| 2.1.3 | Geographic Information System (GIS) | 11 |
| 2.1.4 | Inspection Services Information Systems (ISIS) | 14 |
| 2.1.5 | Integrated Document Management | 16 |

SECTION 2...STRATEGIC DIRECTIONS AND INITIATIVES

2.1 STATEMENT OF TECHNICAL DIRECTION

Keeping up with the pace of change in technology and using technology effectively to meet end-user requirements and expectations are still the most critical challenges facing information technology providers. Advances in technology can enable the workforce to provide better and faster service at a reduced cost, but changes in technology can be expensive and complex. New technology must be adopted carefully and integrated wisely into the existing technology infrastructure of an organization in order to maximize the benefits in a cost-effective manner.

The following five initiatives address the County's objective to provide effective, efficient and customer-oriented access to data and services for constituents and for customers within the government itself.

1 – eGovernment

E-government addresses the ability of Fairfax County to use technology to become a 24-hour operation. The Fairfax County Web Site, kiosks, Interactive Voice Response (IVR) systems and cable TV allow the County to provide a "government without walls, doors, or clocks."

2 – Customer Relationship Management (CRM) Systems

The County has deployed CRM systems in the offices of the Board of Supervisors, the Clerk to the Board, Public Affairs, Consumer Protection, County Executive, and the County's Legislative function within the County Executive's office. The Human Rights office is next in line to have a CRM system installed. Incorporation of CRM technology has yielded numerous benefits to constituents and the multiple offices and County agencies using CRM since its implementation.

3 – Geographic Information System (GIS)

The GIS initiative is focused on the geographic features of the County's land. This initiative allows data to become readily available for use within the County government, but more importantly it allows constituents to access data via the Web 24-hours a day.

4 – Inspection Services Information Systems (ISIS) Replacement

One major and exciting project is modernizing and improving the permitting, plan review and inspection process through use of new technologies. The benefits include e-permitting functionality for businesses, and improved service and reduced cost for customers.

5 – Integrated Document Management

As the document management needs of the County increase, the investment in technology to more efficiently manage the flow and storage of required paper records will increase accordingly. Many government processes are paper-intensive, requiring departments to store large volumes of paper over prolonged periods of time. Retrieval of the documents is likewise time consuming, cumbersome and inefficient. Consequently, the County is developing an enterprise document management technology with incorporated workflow solutions to improve business process efficiency and productivity, alleviate the demand for increased paper records storage space needs, and protect against mounting costs, and human and physical plant asset risks associated with handling of the voluminous units of paper.

2.1.1 e-Government

Fairfax County continues its leadership role in transforming business operations to e-Government technologies. The Fairfax County e-Government initiatives comprise a multi-faceted strategy with a single-minded goal: *to utilize the benefits of emerging technologies to extend and expand the ability of government to provide information and services to County residents, businesses, civic groups and other interested parties.* e-Government projects significantly enhance the availability of County Government information and/or services to a broad segment of the public through information technologies that require limited

staff intervention. A prime consideration in the development of the overall strategy was to ensure inclusion of all County residents, whether or not they have a PC, modem, and/or access to the Internet at home. Fairfax County's overall strategy was to address the "Digital Divide" issue from the outset by offering public access through more than a single vehicle.

Another fundamental strategy was to use these promising technologies to affect a transformation in the way the County conducts business. Rather than just providing static information, a clear goal was set to ensure that each of the technology platforms allowed for business transaction functionality. This functionality includes the ability to pay taxes and other fees, apply for permits and licenses, request service, and access enterprise databases as appropriate. The ultimate goal was not to just provide a front-end to the way the County currently conducts business, but to integrate technology as part of the business process. The four technology platforms comprising the County's e-Government strategy are:

- 1 – *Information Kiosks* that use multimedia (audio, video, graphics and text) touch screen technology to provide information at times and locations convenient to the public.
- 2 – *Interactive Voice Response (IVR)* applications that permit telephone callers to select information and services from audio menus via touch-tone telephone.
- 3 – *Fairfax County Web Site* that provides information to the public worldwide through the Internet and the World Wide Web.
- 4 – *Cable TV* provides high quality programming to Fairfax County, which can be viewed on our government access channels.

The CIO group also combines its e-Government technology with cable TV and the power of the Libraries. The Fairfax County Library system provides a venue for Internet access and Cable Channel 16 provides television programming, which give new options for serving the public. The County's cable TV operation can reach over 700,000 constituents through the information and programming that it broadcasts.

The County libraries work directly with constituents of all ages to teach them how to use technology, provide access to the Internet and assist those with disabilities. The County is bridging its digital divide by providing multi-channel service delivery to our constituency, through the use of the IVR system, Kiosks, the County Web Site, the Library and cable TV.

The overall goal for the e-Government program is to provide the public with responsive and flexible alternatives for obtaining information and services and to allow residents to conduct business with the County at their convenience. The fundamental premise is to build a "government without walls, doors, or clocks." While these projects are intended to leverage current staff resources rather than replace them, the immediate and long-term prospect for the application of information technology in the area of e-Government is to limit the increase in staff needed to service a steadily growing population, thus improving governmental efficiency and convenience to the public it serves. In general, the objectives of e-Government projects are to:

- ▶ *Improve the responsiveness of Fairfax County government* to requests for information and services by its citizens, businesses and the general public.
- ▶ *Reduce the burden of compliance with laws and regulations* by providing alternatives to traditional service windows and mail-in forms that typically require the citizen to stand in line or wait for a reply.
- ▶ *Increase the dissemination of information* about Fairfax County, its government, and its business and employment opportunities to the public, both at home and around the world.
- ▶ *Enhance operational efficiency* by leveraging current staff resources through the application of proven information technologies.
- ▶ *Extend the availability of County government information and services* beyond the normal hours of operation and to nontraditional locations.
- ▶ *Maintain the County's competitive position* relative to other jurisdictions in providing a superior quality of life for its citizens.

In order to further facilitate these goals and to ensure the continued success of its world-renowned e-Government programs, the County continues its momentum by a series of initiatives that will continue into FY 2003:

1. Strengthening the look, search and navigation of the County's information Web site.
2. Leadership role in several cross-government (federal, state, local) initiatives.
3. Integration of e-Government architectures (Kiosk, Web, IVR).
4. Continued leveraging the role of the Libraries and cable TV in the e-Government program

Interactive Kiosks



The County's electronic multimedia kiosk project is a regional program known as CriS (Community Resident Information Services). This regional program provides the public with responsive and flexible alternatives for obtaining information and services and allows residents to conduct business with their government at convenient locations and times. CriS is one of the major cornerstones of the County's public access information initiatives. Our 25 multimedia Kiosks are in 15 public libraries; three regional malls with six total Kiosks, two government centers, a transit center and a health center. Since the conception of CriS in 1996, we have registered over 5.6 million screen touches and over 4 million inquiries for information. These numbers are increasing, as more services and information are made available through the e-Government initiatives.

Due to the success of the Kiosk program there has been overwhelming interest from other local entities (both public and private) to join the program. Partners include The Fairfax County Economic Development Authority, Washington Council of Governments, Inova Health Systems, Virginia Railway Express, Metro bus/rail, the City of Fairfax and Warrenton, and the Virginia Department of Motor Vehicles (DMV). New partnerships are planned for FY 2003 to include the Town of Vienna and the Federal Emergency

Management Agency (FEMA). The partnership with the Virginia Department of Motor Vehicles (DMV) benefited citizens with the implementation of "extraTeller" on all Counties' Kiosks in FY 2002. Residents can renew vehicle registration, renew driver license, and obtain PIN numbers and perform other services, from all County Kiosk locations in addition to all DMV locations in the County.

In order to meet the increasing demands, facilitate growth in new partners, and to enrich the content and e-services, the Kiosk application was redesigned in FY 2002. The improvements made access to content and services easier and simplified information retrieval. Additional improvements included adding a more robust 'search function,' and implementation of a Web-browser that makes information and services available on the County Web site accessible through the Kiosk. New Kiosk enclosures were designed to meet Americans with Disabilities Act (ADA) standards and achieve a more modern and attractive appearance. The new enclosures accommodate a card reader, receipt printer, bar code scanner slot and thermal printers, and allow room for future expansion. Completion of migrating CRiS to the new structures is planned for FY 2003.

The following enhancements are planned for FY 2003:

- Deploy additional units and implement new Kiosk enclosures
- Implement DMV's extraTeller program on Fairfax County's Kiosks
- Partnership with the Town of Vienna
- Explore and establish new partnerships
- Integration of e-Government architectures
- Begin to evaluate and possibly migrate the kiosk application to a more robust authoring tool that will provide enhanced Internet, credit card processing and database access.
- Continue to explore the use of TRACE system for enhanced Americans with Disabilities Act (ADA) capabilities

Touch-Tone Phone Service via Interactive Voice Response (IVR)

The County's IVR system allows residents to access information and conduct business anywhere there is a touch-tone telephone. There is no need for special equipment and for many transactions, no need to drive to the County Government Center.

The IVR system has collected over \$2,000,000 in traffic fines, and routinely handles more than 2,000 calls per weekday and between 400 and 500 calls each weekend. Roughly half of all County agencies have implemented an IVR system for servicing constituents. The system is available approximately 24 hours a day to interact with citizens, giving citizens another option for conducting business with the County after regular business hours. The system has a 192-line capacity with a "hot backup" to ensure access.

In the coming fiscal year, there are plans for a pilot project to test new text-to-speech technology, and for an upgrade our existing software and hardware to be positioned for embracing technologies of the future, such as voice recognition. IVR connects our computer systems with touch-tone phones, allowing callers to interact with the following applications:

Current Applications:

- ▶ **Public Affairs 324-INFO** general County information line: (703-324-4636)
- ▶ **County Courts Information Line:** Information and procedures for all courts, and credit card payment of traffic tickets: (703-691-7320)
- ▶ **Inspection Requests:** Schedule/cancel requests for building inspections: (703-222-2474)
- ▶ **Fire & Rescue's Media Information Line** — After-hours fire incident updates: (703-324-3000)
- ▶ **Permit/Plan/Inspection Status Inquiry:** Queries database by permit number: (703-222-5155)
- ▶ **Tax Payments** (goes to 1-800-2PAYTAX; 703-222-6740)
- ▶ **FAX-on-Demand** of real estate assessment, tax, and property data by address: ... (703-222-6740)

- ▶ **Waiting List query for public and rental housing:** (703-449-9050)
- ▶ **Victim Services Information Line:** Allows query of release date information: (703-246-2141)
- ▶ **Automatic scheduling of Bulk or Brush Special Pick-ups** for County customers: (703-802-3322)
- ▶ **Health Department information line:** (703-846-2411)
- ▶ **Traffic Ticket Payments:** (703-324-3764)

IVR Results:

- The IVR system currently takes **78,000** calls per month, with approximately 15 percent of calls taken outside of normal working hours.
- The IVR system routinely handles more than 98 hours (combining all applications) per weekday of interaction with the public. This is the equivalent of nearly 12 full-time staff.
- In one month the IVR collected **\$109,191** in traffic fines after the application was rewritten to access the state computer system.
- Approximately **38,000** faxes are sent annually by the system.

Fairfax County Public Access Web Site

The Fairfax County Web Site, inaugurated in June 1996, underwent a complete redesign that was unveiled in FY 2001. In December 2001 **www.fairfaxcounty.gov** domain was announced. In FY 2001, surveys were conducted and focus groups held to obtain citizen input on the design characteristics, content, and navigation. The improved look and feel of the Web site is user-friendly and easy to navigate, and complies with the mandates of the Americans with Disabilities Act (ADA) and section 508.

Like many government sites, the original home page design reflected the organizational structure of County agencies. The goal of the redesign was to provide navigation that met the needs of residents and others



who were trying to obtain needed information or services, without having to be completely familiar with the structure of the government. Since a substantial number of County functions cross over agency boundaries, this function-oriented vs. agency-oriented approach is critical to the success of all on-going IT initiatives.

The site provides a wide array of information about County activities, policies, and procedures, functions and services, and serves as an additional vehicle for citizens and others to communicate and interact with the County via their home and office computers. More than 50 County agencies provide information and/or services via the site. The site provides a wide array of information about County activities, policies and procedures, functions and services, and serves as an additional vehicle for citizens and others to communicate and interact with the County via their home and office computers. More than 50 County agencies provide information at this site. The site receives more than one million visitors each month, an average of 76,000 pageviews per day. The Web server delivers between 80 to 90 gigabytes of data to the public per month. The site is receiving approximately 13,000 visitors per day, which equates to 76,000 average page views per day, and 307,000 average hits per day.

The second phase of the redesign includes the implementation of both a Content Management System (CM) and a Software Configuration Management System (SCM). Content management will greatly increase the ability of County agencies and departments to quickly and accurately publish and update their information across multiple platforms. It will also allow for more consistency and centralized control of the site's design elements and navigation.

Among the most significant activities planned for FY 2003 is the identification and resolution of interoperability issues associated with consolidating the architectures of IVR, Kiosk, Web, InfoWeb and wireless technologies. The ultimate goal of this project is the enhancement of both the information and infrastructure architectures supporting e-Government initiatives in order to facilitate delivery of integrated and accurate information to citizens via multiple platforms. Internally this will generate economies of

scale in providing the needed support for the ever-increasing demand for e-Government services. Additionally it will allow for the sharing of data across jurisdictional lines; thereby increasing both the scope and value of information and services provided to citizens.



The direction for Web site efforts to concentrate on access to enterprise data and interactive applications will continue and expand, in FY 2003. A new e-pay-

ment contract was put in place which will allow for a more robust, flexible and secure common platform for multiple forms of electronic payment through any of our e-Government venues. We added a Park Authority registration and payment application in FY 2002 and plan to add more payment applications through e-Government such as parking tickets in the near future. The goal is to allow residents and others to conduct business with the County 24 hours a day, seven days a week at a time and location convenient to the resident.

A sample of the services currently available is detailed below:

- Access the Human Services Resource Guide database with information on both public and private services available to citizens of Fairfax County
- Access the Real Estate Assessment database by street address or map number for information on property in Fairfax County.
- Pay taxes using *credit cards*
- Pay taxes using *eCheck* (via bank routing number)
- Register and pay (as appropriate) for Park Authority classes, camps and tours
- Access and review the County Code
- Access information about job vacancies
- Access and download RFPs or other solicitations. Approximately 70 percent of County RFPs are accessed through the Web rather than a hardcopy from the Department of Purchasing and Supply Management (DPSM)

- Access current news and press releases from Fairfax County agencies
- Access your library account and what you have checked out or have on hold
- Access the Library Card Catalog
- Access the Historical Newspaper database (approximately 1.5 million articles)
- Apply for a library card
- Report a lost pet
- Access the Consumer Protection database, and report problems to the department
- Access the Department of Purchasing and Supply Management Contract Register Database
- Report the sale or move-out of a vehicle to Department of Tax Administration
- Report a change of address for tax bills
- Assist in computing a tax bill adjustment resulting from the sale or move-out of a vehicle (prorate calculator)
- Access to County Health Department Food Inspections Database
- Access GIS aerial photography with pan and zoom

The benefits of the County's e-Government initiatives include:

- Staffing costs avoided through increased provision of services by alternative methodologies. This benefit primarily results from the reality that maintaining current levels of services under conditions of a growing population such as Fairfax County's will require additional service inputs. By substituting technological inputs for labor inputs, the County will avoid significant future increases in staffing costs.
- Savings to citizens and businesses resulting from reductions in the travel and time costs associated with conducting business with the County and/or complying with laws and

regulations. The cumulative impact of these costs on the citizenry is profound, especially on those living furthest from the points of service provision.

- Fairfax County to prospective businesses and residents. Constituents have quicker access to a wide variety of Fairfax County information and services. Each information inquiry or business transaction fulfilled by the Internet saves valuable resources (such as the need for less County staff time and reductions in mailing costs). These resources are either saved or devoted to other important services and functions.
- Ability of County agencies to create lower cost information technology solutions that deliver high value and are implemented in a shorter time frame.
- The County realizes a significant Return on Investment (ROI). For example, by putting the "Citizen's Handbook" online, the Office of Public Affairs was able to provide the handbook via the Web instead of printing and mailing 240,000 copies. The Department of Purchasing and Supply Management estimates that 70 percent of vendors obtain County RFP solicitations directly from the Web site, saving thousands of dollars in copying, mailing, and staff time costs. Human Resources is now able to post the Job Listing weekly rather than biweekly and reduce the number of hardcopy versions by more than half.

In addition to its efforts to provide access to County information and services via the Web site, Fairfax has taken a leadership role in exploring the opportunities for sharing and making available relevant information from both the state and federal government. As such, Fairfax County is actively involved with the State of Virginia and the federal government in the "Government Without Boundaries" initiative. The goal of this program is to eliminate the inherent barriers to information and services, which cross these governmental levels.

The Fairfax County Public Access Initiative: A Local Government Success Story

Customers Served:

Kiosk: over 5,534,000 “Screen Touches”
to date or 220,000 users

IVR: 800,000 Calls

Web: 1,000,000 visits *per month*

Information and Services Available:

- ◆ Adult education classes *Web*
- ◆ Becoming a child-care provider *Web, Kiosk*
- ◆ Board Meeting minutes (searchable) *Web, Kiosk*
- ◆ Budget information and approved budget *Web*
- ◆ Bus tour schedule *Web, Kiosk*
- ◆ Child-care provider list *Web*
- ◆ Collection of household trash & recyclables *IVR*
- ◆ County Code — full text *Web*
- ◆ County demographics *Web, Kiosk*
- ◆ County maps, scrollable, printable *Web, Kiosk*
- ◆ Courts — Circuit, General District, and Juvenile *Web, Kiosk, IVR*
- ◆ Crime statistics, Wanted List, Neighborhood Watch *Web*
- ◆ Health information *Web, IVR, Kiosk*
- ◆ Housing information *Web, IVR, Kiosk*
- ◆ Inspection scheduling status *IVR, Kiosk*
- ◆ Information for victims of crime *IVR, Kiosk*
- ◆ Job opportunities *Web, Kiosk*
- ◆ Multi-jurisdictional information *Kiosk*
- ◆ Newcomer information *Web, IVR, Kiosk*
- ◆ Parks/Recreation information *Web, IVR, Kiosk*
- ◆ Public safety information *Web, IVR, Kiosk*
- ◆ Real estate property assessment & tax information *Web, IVR*
- ◆ Seniors information and programs ... *Web, IVR, Kiosk*
- ◆ File complaints about landlord or consumer problems *Web*
- ◆ Find location of closest Library by entering zip code *Web*
- ◆ Register & pay for Park Authority classes, camps, & tours *Web, IVR*
- ◆ Locate facilities and public transportation *Kiosk*
- ◆ Obtain permit/plan status *Web, IVR, Kiosk*
- ◆ Pay taxes with credit card *Web, Kiosk*
- ◆ Pay taxes via eCheck *Web*
- ◆ Pay traffic tickets with credit card *IVR, Kiosk*
- ◆ Query current real estate property & tax information *Web, IVR*
- ◆ Query Human Services online “Resource Guide” *Web, Kiosk*
- ◆ Query for current position on the Housing Waiting List *IVR, Kiosk*
- ◆ Query specific court case information *IVR*
- ◆ Query status of an inspection, permit, or plan *Web, IVR, Kiosk*
- ◆ Query Victim Services data for offender release date info *IVR*
- ◆ Register a vehicle *Web*
- ◆ Request faxes of court fees and procedures *IVR, Kiosk*
- ◆ Renew vehicle registrations *Kiosk*
- ◆ Reserve a golf tee time *Web*
- ◆ Reserve/renew Library books — search catalogue *Web*
- ◆ Reserve a picnic area *Web*
- ◆ Report change of address for tax purposes *Web*
- ◆ Report a lost pet *Web*
- ◆ Report a zoning or noise ordinance violation *Web*
- ◆ Report vehicle sale or “move out” with prorate calculator *Web*
- ◆ Schedule inspections *Web, IVR, Kiosk*
- ◆ Schedule special pick-ups of brush or bulk items *Web, IVR, Kiosk*
- ◆ Search for information in historical newspaper *Web*
- ◆ Search for Health Department clinics by area of County *IVR*
- ◆ Search for County agency telephone numbers by keyword *IVR, Kiosk*
- ◆ Subscribe to County publications *Web, Kiosk*
- ◆ Volunteer to help in the Library or Parks *Web*

Doing Business with the County

- ◆ Access Health Department food inspections database *Web*
- ◆ Access GIS aerial photography with pan and zoom *Web*
- ◆ Apply for County jobs *Web, Kiosk*
- ◆ Apply for a library card *Web*
- ◆ Directly connect to County staff..... *Kiosk*
- ◆ Download request for proposal/invitation for bid *Web*

2.1.2 Customer Relationship Management (CRM)



There has been a paradigm shift over the last decade in the way Fairfax County conducts business. The number of phone calls, e-mails and faxes to

the County has increased, while the number of walk-ins has decreased. Local businesses and citizens' expectations for customer service and accurate information remain constant, but the methods of communication have changed. In response to these changes, the County has successfully entered into the world of CRM, with system installations in the offices of the Board of Supervisors, the Clerk to the Board, Office of Public Affairs, Consumer Protection, County Executive and the County's Legislative function within the County Executive's office. The Human Rights office is next in line to have a CRM system installed.

Incorporation of CRM technology has yielded numerous benefits for constituents and the multiple offices and County agencies using CRM since its implementation. The Web enabled system 'Internet Quorum' replaced several obsolete Paradox applications. This platform has become the County's standard solution, with improvements made in the underlying infrastructure that allows multiple user agencies to use the same system. This makes it much easier for DIT to support the various user groups.

Within user departments, the system provides functionality as diverse as: integrated management of correspondence; the ability to proactively message constituents; the capability for Consumer Protection investigators to better manage their cases; access to historical data and the ability to relate data together and collaborate; downloading of legislative bills from the General Assembly session directly into the system, eliminating retyping; capabilities for imaging and workflow and other time saving functions. The Consumer Services information in the system is now available online, and allow constituents to do research themselves as well as report problems to the department via the Web.

There have been significant staff productivity and efficiency improvements with the use of CRM. County staff can now conduct business more proactively, mining the results of interactions and services. This allows staff the opportunity to be more involved in the mission and goals of their agencies and to better respond to constituent needs. The system has a powerful relational database back-end, which reduces the time and resources needed to support the application and its infrastructure. The reporting capabilities have also greatly increased. As stated above, CRM systems are currently operational in the following agencies:

Board of Supervisors Offices

The CRM products assist the users to record, route and manage interactions with constituents and organizations. The benefits include:

- Integrated management of correspondence, which handles contacts of every kind including letters, e-mail, faxes, phone calls, visits, and meetings and reduces the amount of time staff spend researching the status of various constituent contacts.
- Ability to efficiently track and report on the various large cases in a supervisor district as all information is stored in one place.
- Increased efficiency and effectiveness of staff to respond to constituent needs.
- Improved service delivery to constituents due to proactive notifications concerning local matters of interest.
- System integration with other technologies such as imaging is now possible.
- Ability to handle more inquiries faster, and more effectively due to the user-friendly aspects of the system.
- Ability to find and retrieve documents easily. The software tracks the creation of outgoing letters and scanned incoming documents that are linked to the constituent's correspondence history.

Clerk to the Board of Supervisors

The Boards and Commissions module allows users to track appointments and nominations to boards, committees and councils and to keep a complete correspondence history regarding contact with these individuals. The benefits include:

- Efficient comprehensive tracking and management of vacancies, candidates, and current membership of boards, commissions and other appointed organizations.
- Opportunities for staff to participate in telecommuting and flextime work hours have dramatically increased.
- More staff members have access to the system and are able to assist with the support of key information that needs to be maintained about each Board, Authority and Commission.

Consumer Protection Division

The modules include Complaint Tracking, License Administration and Taxicab Inspections. The benefits include:

- Enabled staff to rapidly open and begin investigating cases. By expediting the administrative components of case investigations, the initial response time has been reduced, resulting in earlier detection of consumer protection violations.
- Expedited the historical research required to discern whether businesses are repeat offenders or not, and how past cases were resolved.
- Cross-referenced cases between investigators that allowed staff to share, online information pertaining to the same or similar consumer protection violations, which also expedited the successful investigation and resolution of cases.
- Facilitates collaboration between investigators on complaints and resolution techniques.
- Allow citizens to access complaint histories of businesses online in order to research and better determine the pros and cons of doing business with those merchants.

- Allows Fairfax County Police to have online access to check the licenses of all solicitors, peddlers, pawnbrokers, massage therapists, taxi drivers, etc.

Office of the County Executive

The Legislative Tracking Monitor application is used to assist County agencies to monitor, review and track state legislation when the Virginia General Assembly is in session. The CRM products are also used to record, route and manage interactions with constituents and organizations. The benefits include:

- Automated downloading of extracted legislative bill information from the Commonwealth's Legislative Information System and its immediate import to the new system. This eliminates the need for a legislative aid to perform the data entry task as was required with the previous system. Staff can now spend time entering County comments about specific state legislation.
- Elimination of the need for County staff to search for bills and comments because they are imported into the system from the state's Legislative Information System.
- Web design greatly reduces the response time for the individuals located in the Richmond office during session. An almost instantaneous display of agency comments on legislation is now possible.
- Elimination of the labor-intensive system setup, which was required with the former system in order to be ready for the legislative session.
- Staff can now spend more time analyzing bills and comments and providing more comprehensive input needed for discussions.
- Reporting capabilities have greatly increased.

Office of Public Affairs

This system is to be used in a manner similar to the Board of Supervisors and includes publication/brochure tracking and workflow. The benefits include:

- Elimination of the cumbersome process of manually tracking constituent requests while

providing staff with a more efficient means of responding to requests.

- The ability to tracking mandated Freedom of Information requests through an automated program.
- Enables staff to track and distribute press documents through faxing, e-mail and hard copy distribution to multiple media organizations simultaneously.

Human Rights Commission

Performance, security and usability issues have triggered the move to the constituent and complaint tracking system. The benefits include:

- The system will create, track and report on case workflows allowing the investigators to meet multiple requirements.
- The system will streamline complex discrimination processes and addresses privacy concerns for investigator and conciliators.

Future System Enhancements

County agencies and DIT will continue to assess business processes within the County to maximize the opportunities for increased use of the CRM system. A comprehensive and flexible workflow system will provide the tools needed to deliver strong citizen service and improved business processes. We expect to add workflow routing functionality, based on subject matter, in appropriate agencies. The individual workflows are generated by automatic importing, electronic messages or other communications, and are sent to appropriate staff members. We will add other modules to the existing system, including an Internet Mail Agent, which will manage and filter electronic mail.

The ultimate goal with CRM is to provide the County with an enterprise-wide, automated, full function Constituent Contact Center that will provide citizens one-stop customer service within the County. It will organize the tracking and monitoring of communications, cases, contacts, events and complaints. This Web-enabled solution will provide a robust, consistent foundation for managing all citizen

relationships. We will utilize a knowledge-based, centralized repository of data, and will ensure all call taker analysts have the most current information at their fingertips, regardless of the communication source. Citizens will have convenient access to one-stop services via the County Web site, Kiosks, IVR systems, fax, e-mail as well as by voice with one simple phone number.

In the future, we will leverage emerging technologies as we move into more of a unified messaging environment. Live help using a Web interface, such as instant messaging and chat, will give users another method for receiving real-time support, and in addition we could incorporate multi-media and other forms of digital and wireless communications to improve the user experience. Through Computer Telephony Integration (CTI), internal calls or transferred calls will be presented to call taker analysts along with a “screen-pop” of information relevant to the citizen’s call.

To ensure access to the widest range of information, and to build a comprehensive knowledge base for call taker analysts to assist citizens, the Constituent Contact Center will form service level agreements and partnerships with appropriate state, federal, private entities such as VDOT, Dominion Power, etc. The Constituent Contact Center will track all interactions, ensuring closed-loop resolution. The center will be customized to route interactions and manage cases based on each agency’s given business requirements. Incoming contacts can be routed to groups based upon selected criteria, levels of access or other parameters. Call taker analysts can reassign the case to another agent if they are not able to close the loop for the citizen.

Supervisors can set policy rules to control access to viewing, modifying, or creating contacts or cases. Built-in service level management notifies a supervisor if service levels fall below target, and notifications can be escalated according to pre-determined business rules. We will be able to monitor and manage workload and performance with a comprehensive set of analytical tools for real-time and historical reporting. Supervisors can see both high level and detailed information by call taker analysts or by issue.

Understanding the constituent needs is key to a successful enterprise CRM initiative. To achieve this understanding, it will require strategically integrating constituent analysis into all interactions. This will ultimately give the County the opportunity to better develop relationships with citizens and more effectively address their problems. Over time, we believe enterprise CRM and the Constituent Contact Center will enhance citizens' trust in County government.

The first step toward a full function, enterprise-wide Constituent Contact Center is completing a telecommunications study for all of Fairfax County government. During FY 2002, a study was undertaken with Federal Engineering, Inc as the hired consultant. The purpose of the study was to formulate a comprehensive Master Telecommunications Plan, identifying immediate needs, as well as mid- and long-term (5-10 year) voice, data and video requirements. The plan recommends tactical and strategic alternatives to the County's projected business needs.

2.1.3 Geographic Information System (GIS)

Fairfax County's GIS has received international recognition. The Environmental Systems Research Institute (ESRI) awarded Fairfax County two separate Special Achievement in GIS (SAG) Awards for both the GIS Branch work and the countywide efforts in GIS. Agencies are increasingly using GIS in their operations — and County residents are benefiting from these efforts. In FY 2003, we will continue with the following goals: increase the use of GIS across the County; increase the number of applications using GIS; increase the production of mapping products from digital data; and increasing the amounts of GIS data available to County staff as well as to the public through new data acquisition and data sharing agreements.

The GIS data warehouse consists of over 1 Terabytes (TB) of digital color aerial imagery (raster data) for the County, and over 15 Gigabyte (GB) of vector data. The aerial imagery is comprised of scanned raw imagery and digital orthophotography. Some of the aerial imagery is now being served via the Web to County residents and the general public.



The vector data enables linkage of County data to the GIS. These data comprise over 50 million data elements in over 150 layers of geographic information. The vector data consists of property data:

330,000 parcels, 340,000 addresses, 11,000 subdivisions, 200 zoning overlay districts, 6,000 zone areas and 8,200 zoning cases; planimetric data including 600,000 contour lines; 4,000 miles of roads, 3,000 miles of water ways, 250,000 buildings; and thematic information like school attendance areas, public facilities and fire response zones. Parcel data is also available via the County's Internet site.

FY 2002 was a year of significant achievement for GIS. For the first time, the zoning and parcel books were produced directly from the GIS data warehouse. The traditional Mylar maps were retired from use. Updating of the 1997 aerial photography was initiated with about 92 square miles of the southern half of the County having orthoimagery delivered (from FY 2000 photography), and orthoimagery for the northwest quadrant of the County (using FY 2001 photography) is slated for delivery in mid FY 2003. The Northeast quadrant is scheduled next. In addition, raw scanned (digital) imagery for the entire County was placed online for both FY 2000 and 2001. The underlying GIS hardware and software architecture was significantly enhanced when the GIS file server was upgraded to the highest server class machine available. The number of GIS application servers was tripled to provide both redundancy and speed. A map-making wizard was made available to the public on the walk-up computers at the GIS counter. This application enables citizens to custom make their own maps and print them out in color, up to 3' x 4' in size.

A key project that will make more data available through the GIS is establishing a cleaned and verified master address database. The project was inaugurated in FY 2002 and will continue into FY 2003. Addressing data is a core component of the County's GIS. Because the vast majority of County data is about a specific

location within the county (approximately 80-90 percent of municipal data are locational), it is important to ensure that these data can be linked to the GIS in order to take advantage of “place-based reasoning” and analysis. The most common locational link is property address. The resulting system will provide current and correct addresses to all County agencies. It will standardize the address format and simplify linkage by address by making the data available on an enterprise server using County standard RDBMS.

The pioneering street centerline data sharing agreement with the Virginia Department of Transportation resulted



in the delivery of a standard centerline file for all of the roads in Fairfax. Considering that VDOT is responsible for 426 lane miles of interstate, 651 lane miles of primary roads (route numbers are less than 6000) and 5,162 lane miles of secondary roads, the benefits to both the County and VDOT are significant. In FY 2002, the data underwent additional verification and cleaning so that it can be used in automated routing applications. Based on the success of this approach, the Northern Virginia counties are exploring developing a regional centerline in conjunction with VDOT.

FY 2002 saw a continuing significant increase in GIS usage over the Web. In a little over nine months (starting in March FY 2001), the new parcel application served over one million maps via the Web. We expect even larger numbers as the site receives more publicity. The software and hardware was able to handle the large demands resulting from the annual mailings of the assessment notices. In one case, almost 10,000 maps were easily served in one day. Use of the GIS software and data warehouse continues to increase as nearly 500 different users have been tracked. A key reason is that GIS is now available to every County desktop with a computer connected to the LAN. Governing Magazine’s “A” rating of the County’s operations specifically recognized this availability as an important feature. Technically, this was delivered via Citrix technology.

As an example of another major achievement, GIS was a key component of the successful, fast track redistricting of the County after the 2000 census.

Using GIS via Citrix, the County staff enabled a Citizen Advisory board to use real-time GIS tools to recommend redistricting options to the Board of Supervisors. This was the first time this approach and set of tools were made available to citizens in the redistricting process.

In FY 2002, the GIS Branch completed a complete redesign of its parcel database and implemented several tools to enhance the staff’s ability to maintain the parcel data on a daily basis. A key feature of the redesign adds temporality to the parcel database. From FY 2002 forward, the parcel map of the County can be displayed for any date. The annual parcel and zoning books will still be produced. However, it will be possible to view online the parcel maps for any specified date.

The GIS Branch continues to provide County employees support via the DIT Technical Support telephone numbers. Pagers are issued to the GIS staff to provide quick callback response to users.

Administrative Efficiencies and Service Quality Improvement

Over 25 county agencies now use GIS to some extent in their operations, including the GIS Branch itself.

- The transition to digital property and zoning information now enables the GIS Branch to maintain these maps daily. Each day the parcel data available online is updated, and by the end of FY 2002 will be no more than one month behind receipt in the GIS office.
- The updated centerline file became a reality in FY 2002 and will be the basis for routing and locational applications.
- The GIS Branch now provides customers with the ability to come to the GIS office and create custom maps. This is done via a map wizard running on the public PCs that simplifies map creation. It prints to the Branch’s high-speed printers and plotters so that the maps can be printed while the user waits.
- Substantial savings are being realized in the Department of Public Works and Environmental Services through the use of GIS.

- GIS is being used by a growing number of DPWES Offices, including Surveys, Maintenance and Storm Water, Urban Forestry, Solid Waste Collection and Recycling, Storm Water Planning and Waste Water Planning and Management.
- One of the early benefits for the GIS branch was having large area maps (for instance voting districts, magisterial districts, etc.). They were converted to digital maintenance and production three years ago. As a result of the switch over, producing these maps annually requires 50 percent less effort than the previous manual process.
- In Health areas, GIS has been used as part of the West Nile Virus planning and response, as well as tracking tuberculosis in the County. Previously the GIS had proven its value in the canker worm outbreak in FY 2001 (and before that the Gypsy Moth outbreak). GIS enabled County staff to quickly identify residents who would be affected by planned canker worm spraying and contact them ahead of time. The GIS also enabled them to provide spraying coordinates to the helicopter spray crews so that balloons would not have to be used. This was a significant time and cost savings.
- The Fire and Rescue Department (FRD) has been making substantial use of GIS and is experiencing significant savings. For instance, in the process of responding to Fire Hydrant and Insurance queries, the GIS saves about 50 percent in staff time to determine the distances. A new Web application being planned will provide even more savings once it is developed and online.
- Another example of FRD's savings is in identifying the five-minute response time areas for stations — a factor crucial to establishing response areas that are within response time limits. Staff savings were estimated at 98 percent in doing that countywide analysis.
- The Police Department had significant success in its use of GIS in crime analysis.

In two separate instances, the Department's crime analysts were able to identify spatial patterns in crime incidents and successfully predicted the subsequent crime locations. In both instances suspects were arrested.

- The Department of Planning and Zoning used the digital aerial color photography to conduct an inventory of County trails. They completed the effort in several months rather than the year that it would have taken without GIS.
- The County Library System uses GIS to analyze catalogue collection based on local population. This enables each library to emphasize topics of interest to their local patrons.

Over the Next Year

In FY 2003, the GIS Branch will initiate more strategic interaction with County agencies to foster their development of GIS capabilities and integration into their business processes. The preceding years have seen GIS take root in most county agencies. The challenge now is to foster, broaden and integrate that growth with management involvement and support.

Additionally, there will continue to be emphasis on data quality, system reliability and connectivity as well as implementation of new GIS applications. These aspects are crucial to implementing GIS as a data "utility" across the County so that users at any of the County's offices can "turn on" their GIS "data tap" and have all of the data they need available to them immediately. Data quality is a paramount issue. Rigorous Quality Assurance/Quality Control measures have been implemented on the parcel data updates. Similarly, rigorous quality standards have been developed for the aerial imagery being acquired.

System reliability is becoming an increasingly crucial issue as more users integrate GIS into their daily operations. To ensure that the technology is available to them, the GIS Branch is procuring additional servers and software to provide redundancy in case one of the systems goes offline. The GIS Branch is now monitoring the performance of its applications and systems to ensure reliability. Critical applications are monitored around the clock and staff members are on call if system outages occur outside of work hours.

System connectivity is essential for thorough integration of GIS into County operations. It involves establishing robust, reliable and preferably real-time links between the GIS data warehouse and other vital county databases like REABS, the Land Development System (LDS) and others. GIS staff will be working closely with other agencies such as the Department of Tax Administration and the Department of Planning and Zoning to ensure optimum connectivity between the GIS data warehouse and their operations as well as with DIT to help provide sufficient bandwidth to offices that require it for GIS.

Finally, as the GIS Branch works closely with other agencies, staff will design and implement specific applications to enable users to more easily do the spatial analysis and querying they need to do with the GIS data. These custom applications will not only decrease the time necessary to do the queries, but it will increase the number of staff that can use the data since the applications will be designed specifically for their operations. The GIS Branch has implemented the DIT Application Life Cycle Standards as part of the design and implementation process to ensure consistency and thoroughness in the process.

2.1.4 Inspection Services Information Systems (ISIS) Replacement

The Inspection Services Information System (ISIS) Replacement Project is a strategic initiative that will implement e-permitting in Fairfax County. This multi-million dollar, multi-year project is a combined effort of several agencies involved in providing the County's permitting, structural plan review, and inspection services. It is envisioned that the new system will facilitate online permitting, provide online plan review capability, integrate with the GIS to capture and present data in a graphical format, integrate with the existing Land Development Systems' (LDS) database to ensure the seamless availability of land development data, and provide a virtual one-stop shop for processing permit applications.

The ISIS replacement initiative represents a concerted effort to harness the expertise of all its stakeholders in

developing the requirements for the new e-permitting system. A project steering committee comprised of local and national agencies, both public and private, was formed in FY 2001 to provide guidance and the benefit of national experience in these matters. In addition, a team of representatives from each of the core user agencies was formed to assist in the management of this effort and the coordination of gathering system requirements from the stakeholders.

Customers and county staff who use the system on a daily basis have provided critical input for the development of the user requirements. Numerous workgroups consisting of representatives essential in developing system requirements were formed for the project. In addition to customers and outside agencies, these workgroups included staff of the Health Department, Department of Tax Administration, Fire and Rescue Department, Department of Planning and Zoning, Department of Public Works and Environmental Services, Department of Finance and the Department of Information Technology. The combined efforts of these groups have provided input on the needs of all the beneficiaries, with a concentrated focus on the day-to-day customers and the organizations that rely on the County for permit processing and inspection information.

The vision and goals established for the new system require that this project be divided into manageable phases. The initial phase of this project is focusing on the replacement of the legacy ISIS system. The replacement system will provide a platform that will serve as the foundation for all future e-permitting enhancements while providing immediate additional functionality and a streamlined process. The first phase will include the acquisition of a Web-enabled system with the capability to provide access to permit information and the permit process 24 hours a day, seven days a week. The system will provide a virtual one-stop shop offering e-permitting opportunities for many projects not requiring plans. The replacement project will also provide a management toolbox to enable an ongoing analysis of efficiency and effectiveness of resource utilization (including tools such as workflow processing, deadline reminders, identification of bottlenecks within the process, and benchmarking indicators).

Anticipated enhancements for future phases include the electronic submission, distribution and review of plans and permit applications by all required review agencies; the issuance of permits online for complex projects requiring the submission of large scale plans; the use of project-specific extranet sites to facilitate communication and to create a more collaborative plan review and permit issuance process; and the availability of real-time wireless inspection results. Other possible enhancements that can result in an expedited construction process are limitless, but will likely include the use of 3-D modeling and visualization of major projects online.

The ambitious goals for ISIS replacement focus on enhancing service delivery and creating adaptability on the new platform to incorporate new technologies for expanded permit related services. The approach for this project is to incorporate all essential stakeholders in the design and acquisition process to ensure a seamless, streamlined integration with all other pertinent systems. This includes the effort to replace the multiple stand-alone inspection related databases being utilized by the Fire and Rescue Department (FRD). Although the FRD project was initiated independent of ISIS replacement, both projects have subsequently been consolidated into a single effort because of the similar nature of the processes being automated.

In FY 2002, a Request for Proposal (RFP) to procure an appropriate solution for the e-permitting system was developed and put out for competitive proposal. The outcome of the RFP process will determine if the appropriate ISIS replacement solution will be a custom developed application, a commercial of the shelf software (COTS) package, or a custom implementation of a COTS solution. Regardless of the approach, the solution must be compatible with the Land Development Systems, fit with the County's technology architecture, and fit into the County's e-Government strategy of using emerging technologies to expand services. Research indicates that most available COTS solutions also offer the functionality required to track and monitor complaints; therefore, a joint request for proposal process is being used to replace the obsolete Paradox complaint tracking system for the Department of Planning and Zoning along with ISIS.

In FY 2003, efforts on the ISIS Replacement/DPZ Complaints Management system will shift from development of system requirements and vendor selection to design and construction of the system. The completion of this project will position the County to utilize additional e-Government capabilities and will more fully integrate all of the land development processes into a consolidated database that facilitates information sharing and one-stop processing. While enhancing customer service, this project will allow greater and immediate public access to permit related data, which in turn reduces customer inquiries and saves significant amounts of staff time. The management of the land development system will be enhanced by the ability to track construction projects throughout the process. The consolidation of land development data will improve the process and the consistency and reliability of information provided to customers — a major focus of the Planning and Development redesign. Finally, the vastly improved search and retrieval capability will facilitate research by the public and the County.

Other related initiatives include the replacement of the Rezoning Application System (RAPS) project, which was initiated in FY 2001. The RAPS Replacement Project was implemented in FY 2002 and adds the remainder of the zoning applications to The Zoning and Planning System (ZAPS) as well as providing several improvements to the existing ZAPS system. Information on all zoning applications is now available in ZAPS and LDSNet. LDSNet is a Web application that provides access to view and track the status of more than 100 different types of zoning, land planning and development applications processed by the County. In FY 2003 the Plans and Agreements Monitoring System (PAMS) Replacement Project, which is the final module of LDS will be replaced. The PAMS replacement project will add waiver, bonding and site inspection data to the existing Plans and Waivers (PAWS) system and will facilitate the tracking of cash proffers. Additionally, the LDSNet application will be enhanced to allow data entry by other county agencies and submitting engineers into PAWS via the Internet.

The completion of ZAPS, PAWS, LDSNet and ISIS Replacement will complete the business process redesign for the Planning and Development agencies, which was initiated in FY 1993.

2.1.5 Integrated Document Management

A recent article in *e-doc* magazine stated, "...document imaging is playing a larger role in today's business environment than ever before." It attributed this growth to the rise of global paper consumption and the growing scope of imaging technology, which can now encompass core business practices, as well as provide better disaster recovery efforts.ⁱ The County's increasing investment in this technology is closely tied to these business trends as well as the growing document management needs of its agencies.

Because of legal mandates, many government processes are very paper-intensive, requiring many departments to store large volumes of paper over prolonged periods of time. Consequently, many County departments are exploring technical solutions to alleviate the demand for increased storage space needs, protect against potential disasters that can potentially destroy volumes of important paper documents, and improve business processes.



The Document Imaging technologies introduced in the mid 1980s provided the ability to convert paper documents into digital images that could be stored on optical disks and then retrieved. This technology worked best in high volume, paper-driven organizations where rapid and frequent retrieval was needed. Since that time, Document Imaging technology has evolved in scope as business needs have expanded. Organizations have realized that the ability to store and retrieve documents through imaging, which usually occurred at the end of the document's life cycle, was only the beginning. Today's business requirements are more encompassing as companies have realized the value of employing technology at the beginning of the document's life cycle and using it to track the document through its workflow processes through its entire life cycle. This comprehensive approach and associated implementation of technology is called Integrated Document Management (IDM).

IDM technology provides organizations the ability to organize electronic documents; manage content;

enable secure access to documents; route documents and automate related tasks; and facilitate document distribution. In essence, this technology provides the functionality for storing, locating and retrieving information throughout the document's life cycle.ⁱⁱ Just as the technology has evolved from Document Imaging to IDM, so have the document management needs of County agencies.

Since the mid 1990's the County has successfully implemented Document Imaging systems in the Circuit Court and the Virginia Room at the Fairfax City Regional Library. Both of these systems have digitally preserved thousands of land records and historical documents and images that are now available to the public via the Web. The Circuit Court project, which began as a Document Imaging project has also evolved through time incorporating an integrated workflow process, as well as other enhancements.

In FY 2003, the County will continue to expand its investments in IDM technology through IT projects in the Office of the Sheriff and Juvenile and Domestic Relations District Court (described in greater detail in Section 3, Information Technology Programs). Although the individual departmental business requirements vary for the use of IDM technology, the following general benefits and quality improvements will result from these projects:

- Increased worker productivity by allowing employees to share and act on accurate information through the delivery of the right documents at the right time
- Enhanced communication and collaboration through shared information
- Improved speed of the information flow throughout the departments
- Improved access and security through controlled access to sensitive documents
- Reduced time spent searching for critical documents
- Improved disaster recovery and electronic storage and backup of information
- Reduction in clerical, paper, printing and storage costsⁱⁱⁱ

The question facing the County's implementation of IDM technology is whether to standardize on one product that can meet all needs-simple to complex-or implement a few IDM products, selecting the one product that best meets the specific departmental requirements on a project-by-project basis. One thing is for certain; this is not a "cookie-cutter" technology where one size fits all. Therefore, careful attention will be given to the vendors' family of products in terms of interoperability, scalability, and the underlying technical standards that will maximize sharing opportunities and eliminate disparate proprietary systems. Many enterprises have struggled with the same question and the implementations chosen have varied.

There are five basic reasons to standardize on a single product:

1. Leverage volume purchase agreements
2. Minimize multiple product and service provider management
3. Reduce staffing and support requirements
4. Reduce training costs
5. Standardize desktop software distribution

The County's challenge is to determine if these reasons are applicable today and if they fit into the County's IT plan and infrastructure. To help evaluate the alternatives and oversee the County's implementation of IDM technology, a Document Management & Imaging Steering Committee has been established to accomplish the following priorities and objectives:

Train Staff on IDM Technology

- Gain a better understanding of imaging and document management technologies-hardware & software-via training, site visits to places of successful implementations, and product demonstrations.
- Explore how imaging and document management technologies integrate with our existing business environment and processes in the areas of Content Management, Document/Records Management, Data Management, and Knowledge Management.

Determine Imaging and Document Management Standards

- Determine common business needs of County agencies for imaging and document management technologies, i.e. interoperability and potential for image sharing across boundaries
- Identify working criteria for selection of appropriate technologies within "the IDM family"
- Determine IDM standards for the County that will meet the varying needs (simple to robust) within the County

Determine Internal IDM Consulting & Implementation Resource

- Evaluate alternatives for the best way to deploy imaging and document management technologies from an enterprise perspective
- Serve as an information resource to County agencies that are exploring imaging and document management technologies and also serve as a central repository for County IDM solutions

Expand IDM Vendor Alternatives for County Agencies

- Issue a new RFP for IDM consulting, training, and vendors/integrators

The County's primary goal is to implement successful IDM systems that meet the business needs and enhance the business processes. To ensure success, we are following Gartner Group guidelines that emphasize upfront planning and a thorough understanding of the proposed IDM system components. The requirements for each of the following components need to be identified:

- The business processes
- The document structure
- The database design
- The desktop and server
- The roles and responsibilities^{iv}

An example of how the County is implementing this methodology is in the Juvenile and Domestic Relations District Court project. The first step taken in the

discovery phase for this IDM system has been to conduct a very extensive review and documentation of the court's business processes. Along with that effort, all of the documents associated with the various case types that come before the court have been inventoried so they can be properly defined by document types, attributes and relationships with other documents. While this process has been a lengthy one, it has provided invaluable information for defining the system requirements.

The remaining components will also be thoroughly analyzed and subject matter experts (in-house and consultants) will be brought in to assist the project staff with the discovery and planning phase of this project. The goal of this extensive upfront effort is to minimize the difficulties in implementing this technology and to ensure that the desired business needs and benefits are achieved. One of the benefits already experienced is the court's staff buy-in for the proposed system. The staff has been heavily involved in characterizing their respective business processes. The expectation is that the staff's involvement will greatly contribute to the acceptance of the newly agreed upon implementation.

Lastly, given the tragic events of September 11, 2001, the County continues to analyze and expand its disaster planning efforts to ensure business continuity in the case of a disaster. An important consideration for these IDM projects has been to provide disaster recovery needs for the departments that are very paper-intensive and have no backup for their critical paper files. IDM technology is being used as one component of the County's business continuity strategy.

We concur with experts like Pamela Doyle who stated, "Document imaging has become vital to business operations-particularly in disaster recover efforts...". This past year many businesses realized that IDM technology is more than just digitizing paper for convenient retrieval. In a little over an hour, the people and offices in the World Trade Center's Twin Towers

that relied on the information contained on printed-paper were helpless. Only the surviving papers floated aimlessly down to the New York City streets when the buildings imploded. This unforgettable image affected businesses in many ways, including a greater awareness about the ability to recover from terrible disasters that threaten an enterprise's business continuity.

In a recent article Pamela Doyle, an industry expert stated, "Document imaging has become vital to business operations-particularly in disaster recover efforts-and is reducing costs, accelerating business processes, ensuring regulatory compliance, and improving communication in industries across the board."^v The County continues to invest in this technology because it wants to further enhance its business operations and gain from the benefits associated with this technology. As the County moves forward with its implementation of IDM technology in FY 2003, the primary focus will be on accomplishing three important goals:

1. The establishment of a County product(s) standard for IDM needs
2. The development of a standard methodology for the implementation of IDM technology
3. The successful implementation of the IDM projects that have been funded

Meeting these goals will not be easy; however, progress will be made and success attained through a methodical and diligent approach in the analysis and implementation of the technology.

Endnotes:

ⁱ Carl Bowman, "What's Changing: A Look at Document Imaging Today," e-doc, November/December 2001, p. 19.

ⁱⁱ Karen Shegda, "Integrated Document Management Software Perspective," p. 1, November 12, 2001, Gartner Group.

ⁱⁱⁱ Shegda, pp. 4-5.

^{iv} Garth Landers and Alan Weintraub, "Keys to a Successful IDM Implementation," p. 1, August 17, 2000, Gartner Group.

^v Bowman, p. 19.